UNITED STATES PATENT AND TRADEMARK OFFICE

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KUMAR, PANKAJ

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 November 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *9* is/are allowed.

6)☒ Claim(s) *1-8 and 10-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-8, 10-17 have been considered but are

moot in view of the new ground(s) of rejection.

Response to Amendment

Claim Objections

2.   Claim 12 is objected to because of the following informalities: "the microcontroller"

should be 'a microcontroller'. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-5, 7, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bass

USPN 5,896,574 in view of Knighton USPN 6,032,866. Here is how the references teach the

claims:

5.   As per claim 1: A method for wireless data communication between a wireless device,

having means for short-range data communication, and an electronic device, the method

comprising: mounting a data communication device (Bass fig. 3: 305, 307; fig. 2: 205, 207)

having means for short-range wireless data communication (Bass col. 4 lines 17-19: radio

module 209 with antenna 213; lines 32-33: radio module 209 contained in housing container

311; line 37: PCMCIA card and radio module connected to housing; line 13: wireless modem

comprises PCMCIA card adapter 205) (Bass does not teach short range but it would be obvious

as explained below) in a general purpose expansion memory (this is not taught in Bass but it

would be obvious as explained below) location of the electronic device (Bass fig. 3: 203A, 203B

in computer 201); activating a short-range wireless data communication link between the

wireless device (wireless device is not in Bass but would be obvious as explained below) and the

data communication device (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer

devices to communicate with other computer devices ..."; fig. 3: the modem 305,307 is the data

communication device which will be attached to the computer); and transmitting data (Bass col.

1 lines 24-26, fig. 5: transmitter 503) between the data communication device and the wireless

device (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer devices to

communicate with other computer devices ...") so that the data communication device operates

as an ordinary expansion memory (Bass does not teach ordinary expansion memory but it would

be obvious as explained below) from the view point of the electronic device (Bass fig. 3: 201 is

the electronic device; Bass figs. 3, 4: attaching the wireless card with the memory into the

computer is from the view point of the computer more memory attached to the computer through

the wireless card; col. 5 lines 34-35: "The adapter card is wired such that it looks to the PCMCIA

bus as a memory card.").

6.   What Bass does not teach is general purpose or ordinary expansion memory. Knighton

with Bass teach general purpose or ordinary memory as memory can be used for different

ordinary applications such as Knighton using memory for ordinary purposes of a microprocessor

(Knighton fig. 8 130, 144) and Bass using memory at least for the ordinary purposes of the

modem (Bass fig. 4). It is common knowledge that if the word memory is used with computers,

that it is an ordinary memory that is used to store general purpose data. It is also common

knowledge that a computer already has memory and thus the Bass computer has memory and

any additional memory attached to the computer, for example attaching memory at the

computer's PCMCIA slot, is an expansion of the computer memory. It is also common

knowledge that if Bass's modem did not have memory but needed to use memory in order to

operate, Bass would have to rely on the computer memory for the data it currently stores in its

modem memory and thus for also this reason, the modem memory is an expansion of the

computer memory. What Knighton also teaches is that the PCMCIA slot is an ordinary general

purpose (Knighton 6032866: col. 6 lines 41-46: PCMCIA slot is ordinary general purpose as it

can have a PCMCIA card which can be ordinary things like memory, camera, optical reader).

Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was

made, to arrive at the general purpose or ordinary expansion memory as indicated by the instant

claims, because the combined teaching of Bass with Knighton suggest general purpose or

ordinary expansion memory as indicated by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or locations with

different functionalities (Bass col. 4 lines 12-16) (something broad) in general and Knighton

suggests the beneficial use of the functionalities being ordinary general purpose (by using the

memory for a different application such as memory for the modem in Bass fig. 4 and memory for

a non-modem microprocessor as in Knighton's fig. 8: 144, col. 6 lines 41-46 and also by other

uses such as camera and optical reader) expansion memory (by the Knighton or Bass memory

being an expansion of the memory already in the computer of Bass and also if Bass's modem did

not have memory but needed to use memory in order to operate, Bass would have to use the

computer memory for data it currently stores in its modem memory and thus for also this reason,

the modem memory is an expansion of the computer memory) in the analogous art of PCMCIA

cards.

7.   What Bass does not teach is wireless device. It is common knowledge that if there is one

device with communicates wirelessly, there is a second device which communicates wirelessly

with the first device otherwise the first device would not be able to communicate wirelessly as it

would not have anyone to communicate with. Bass does teach the first device which is

applicant's claimed data communication device (Bass fig. 3: the modem 305,307 is the data

communication device which will be attached to the computer) and Bass also teaches wireless

communications (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer devices to

communicate with other computer devices ..."). Thus, it would have been obvious, to one of

ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Bass

with the wireless device as recited by the instant claims, because Bass teaches one device

communicating wirelessly and thus suggests that there is a second device or wireless device to

receive the first device's communication in the analogous art of wireless communication.

8.   Bass does not teach short range. It is common knowledge that if transmission power is

small than the range of transmission will be short as there is not much energy to transmit at a

long distance. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass with the short range as recited by

the instant claims, because Bass teaches low transmission power (Bass col. 1 lines 49, 56-59:

transmit power 600mW, 1W up to 3W; since transmit power is small, it will be short range) and

thus suggests that the range will be short (Bass col. 1 lines 44-46: "The ability of the radio to

transmit at certain ranges is limited by the transmit power it can radiate via the antenna.") in the

analogous art of wireless communication.

9.   As per claim 2: a method according to claim 1, wherein in order to enable the data

transmission from the electronic device to the wireless device the following method steps are

performed after the installation of the data communication device and before the activation of the

data communication link: inputting data to the electronic device (Bass fig. 5: receiver); and

processing the data in the data communication device installed in an expansion memory location

(Bass fig. 4 is a card with memory which is put into or installed into the expansion memory

location fig. 3: 203B or 203A before the activation or processing since Bass needs the processor

in card of fig. 4 which has a DSP – digital signal processor which would activate appropriately

after installation).

10.   As per claim 3, a method according to claim 2, wherein the data processing in the data

communication device is made by instructions from the electronic device (Bass: the computer

fig. 3 connects to fig. 4 PCMCIA connector which provides instructions via the arrows to the

DSP via other components).

11.   As per claim 4, a method according to claim 1, wherein the data communication between

the data communication device and the wireless device is made over a low power radio

frequency (LPRF) link (Bass col. 1 lines 27, 44: RF; lines 49, 56-59: 600mW, 1W up to 3W is

low power).

12.   As per claim 5, a method according to claim 1, wherein the data communication between

the data communication device and the wireless device is made on the basis of instructions given

by the wireless device (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer

devices to communicate with other computer devices ..."; the communication between one

computer device which is the claimed data communication device and another computer device

which is the claimed electronic device with the wireless modem card and memory shown in Bass

fig .4; communication is based on signals r instructions given by Bass via various components in

figs. 3, 4, 5).

13.   As per claim 7: A method for wireless data communication between a wireless device,

having means for short-range data communication, and an electronic device, the method

comprising: mounting a data communication device (Bass fig. 3: 305, 307; fig. 2: 205, 207)

having means for short-range wireless data communication (Bass col. 4 lines 17-19: radio

module 209 with antenna 213; lines 32-33: radio module 209 contained in housing container

311; line 37: PCMCIA card and radio module connected to housing; line 13: wireless modem

comprises PCMCIA card adapter 205) (Bass does not teach short range but it would be obvious

as explained below) in a general purpose expansion memory (this is not taught in Bass but it

would be obvious as explained below) location of the electronic device (Bass fig. 3: 203A, 203B

in computer 201); activating a short-range wireless data communication link between the

wireless device (wireless device is not in Bass but would be obvious as explained below) and the

data communication device (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer

devices to communicate with other computer devices ..."; fig. 3: the modem 305,307 is the data

communication device which will be attached to the computer); and transmitting data (Bass col.

1 lines 24-26, fig. 5: transmitter 503) between the data communication device and the wireless

device (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer devices to

communicate with other computer devices ...") so that the data communication device operates

as an ordinary expansion memory (Bass does not teach ordinary expansion memory but it would

be obvious as explained below) from the view point of the electronic device (Bass fig. 3: 201 is

the electronic device; Bass figs. 3, 4: attaching the wireless card with the memory into the

computer is from the view point of the computer more memory attached to the computer through

the wireless card; col. 5 lines 34-35: "The adapter card is wired such that it looks to the PCMCIA

bus as a memory card.") wherein in order to enable the data transmission from the electronic

device to the wireless device the following method steps are performed after the installation of

the data communication device (Bass fig. 3: after 311 is attached to 305 and 307 which are

attached to 203B and 203A) and before the activation of the data communication link (Bass:

before the communication occurs between devices): inputting data to the electronic device (Bass

fig. 4: data is input into the modem from the computer through the PCMCIA connector); and

processing the data in the data communication device (Bass fig. 4: DSP is processing data)

installed in an expansion memory location (Bass fig. 3: 203A, 203B in computer 201) in that the

input data is a picture reflected as light through the objective of a camera (not in Bass bout would

be obvious as explained below).

14.   What Bass does not teach is general purpose or ordinary expansion memory. Knighton

with Bass teach general purpose or ordinary memory as memory can be used for different

ordinary applications such as Knighton using memory for ordinary purposes of a microprocessor

(Knighton fig. 8 130, 144) and Bass using memory at least for the ordinary purposes of the

modem (Bass fig. 4). It is common knowledge that if the word memory is used with computers,

that it is an ordinary memory that is used to store general purpose data. It is also common

knowledge that a computer already has memory and thus the Bass computer has memory and

any additional memory attached to the computer, for example attaching memory at the

computer's PCMCIA slot, is an expansion of the computer memory. It is also common

knowledge that if Bass's modem did not have memory but needed to use memory in order to

operate, Bass would have to rely on the computer memory for the data it currently stores in its

modem memory and thus for also this reason, the modem memory is an expansion of the

computer memory. What Knighton also teaches is that the PCMCIA slot is an ordinary general

purpose (Knighton 6032866: col. 6 lines 41-46: PCMCIA slot is ordinary general purpose as it

can have a PCMCIA card which can be ordinary things like memory, camera, optical reader).

Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was

made, to arrive at the general purpose or ordinary expansion memory as indicated by the instant

claims, because the combined teaching of Bass with Knighton suggest general purpose or

ordinary expansion memory as indicated by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or locations with

different functionalities (Bass col. 4 lines 12-16) (something broad) in general and Knighton

suggests the beneficial use of the functionalities being ordinary general purpose (by using the

memory for a different application such as memory for the modem in Bass fig. 4 and memory for

a non-modem microprocessor as in Knighton's fig. 8: 144, col. 6 lines 41-46 and also by other

uses such as camera and optical reader) expansion memory (by the Knighton or Bass memory

being an expansion of the memory already in the computer of Bass and also if Bass's modem did

not have memory but needed to use memory in order to operate, Bass would have to use the

computer memory for data it currently stores in its modem memory and thus for also this reason,

the modem memory is an expansion of the computer memory) in the analogous art of PCMCIA

cards.

15.   What Bass does not teach is wireless device. It is common knowledge that if there is one

device with communicates wirelessly, there is a second device which communicates wirelessly

with the first device otherwise the first device would not be able to communicate wirelessly as it

would not have anyone to communicate with. Bass does teach the first device which is

applicant's claimed data communication device (Bass fig. 3: the modem 305,307 is the data

communication device which will be attached to the computer) and Bass also teaches wireless

communications (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer devices to

communicate with other computer devices ..."). Thus, it would have been obvious, to one of

ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Bass

with the wireless device as recited by the instant claims, because Bass teaches one device

communicating wirelessly and thus suggests that there is a second device or wireless device to receive the first device's communication in the analogous art of wireless communication.

16.   Bass does not teach short range. It is common knowledge that if transmission power is small than the range of transmission will be short as there is not much energy to transmit at a long distance. Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Bass with the short range as recited by the instant claims, because Bass teaches low transmission power (Bass col. 1 lines 49, 56-59: transmit power 600mW, 1W up to 3W; since transmit power is small, it will be short range) and thus suggests that the range will be short (Bass col. 1 lines 44-46: "The ability of the radio to transmit at certain ranges is limited by the transmit power it can radiate via the antenna.") in the analogous art of wireless communication.

17.   Bass does not teach input data is a picture reflected as light through the objective of a camera. What Knighton teaches that the PCMCIA slot is used for camera that inherently inputs a picture reflected as light through the objective of the camera (Knighton 6032866: col. 6 lines 41-46: PCMCIA slot a camera). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the input data is a picture reflected as light through the objective of a camera as recited by the instant claims, because the combined teaching of Bass with Knighton suggest general purpose as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Bass with Knighton because Bass suggests input data (something broad) in general and Knighton suggests the beneficial use of having a camera, which inherently inputs a picture reflected as light through

the objective of the camera, such as for reading human viewable images (Knighton col. 2 lines

13-14) in the analogous art of PCMCIA cards.

18.   As per claim 8: A data communications device for wireless data communication between

a wireless device, which has means for a short-range data link, and an electronic device, the data

communication device comprising: a controller connectable (Bass fig. 2, 3: 209 is connectable)

to a general purpose interface of an expansion memory location (general purpose interface of an

expansion memory location is not in Bass but would be obvious as explained below) of the

electronic device (Bass fig. 3: 201), for controlling the operation of the data communication

device (Bass: the data received by the baseband processor 205, 305 has to first go through the

radio module 209 and hence the radio module controls what the baseband processor receives), a

short-range (short range is not in Bass but it would be obvious as explained below) radio

frequency (Bass col. 1 lines 27, 44: RF) wireless data communication unit (not in Bass but would

be obvious as explained below) and a short range radio frequency antenna (Bass fig. 5: 515) for

data communication; and a memory for storing the communicated data (Bass fig. 4: memory),

wherein said communication device for wireless data communication (Bass fig. 3: 305, 307, fig.

2: 205, 207: the modem 305, 307, 205, 207 is the data communication device which will be

attached to the computer) is arranged to mount into a general purpose expansion memory (this is

not taught in Bass but it would be obvious as explained below) location of the electronic device

(Bass fig. 3: 203A, 203B in computer 201), said communication device being arranged to

operate as an ordinary expansion memory (Bass does not teach ordinary expansion memory but

it would be obvious as explained below) from the view point of the electronic device (Bass fig.

3: 201 is the electronic device; Bass figs. 3, 4: attaching the wireless card with the memory into

the computer is from the view point of the computer more memory attached to the computer

through the wireless card; col. 5 lines 34-35: "The adapter card is wired such that it looks to the

PCMCIA bus as a memory card.")

19.   What Bass does not teach is that the PCMCIA slot is a general purpose interface. What

Knighton teaches that the PCMCIA slot is a general purpose interface (Knighton 6032866: col. 6

lines 41-46: PCMCIA slot is a general purpose interface as it can have a PCMCIA card which

can be such things as memory, camera, optical reader). Thus, it would have been obvious, to one

of ordinary skill in the art, at time the invention was made, to arrive at the general purpose

interface as recited by the instant claims, because the combined teaching of Bass with Knighton

suggest general purpose interface as recited by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests two PCMCIA slots or locations with different functionalities (Bass col. 4

lines 12-16) (something broad) in general and Knighton suggests the beneficial use of having the

PCMCIA slots be general purpose interface by being able to have things with additional

functionalities such as to have more memory, or to have a camera, or to have an optical reader in

the analogous art of PCMCIA cards.

20.   What Bass does not teach is general purpose or ordinary expansion memory. Knighton

with Bass teach general purpose or ordinary memory as memory can be used for different

ordinary applications such as Knighton using memory for ordinary purposes of a microprocessor

(Knighton fig. 8 130, 144) and Bass using memory at least for the ordinary purposes of the

modem (Bass fig. 4). It is common knowledge that if the word memory is used with computers,

that it is an ordinary memory that is used to store general purpose data. It is also common

knowledge that a computer already has memory and thus the Bass computer has memory and

any additional memory attached to the computer, for example attaching memory at the

computer's PCMCIA slot, is an expansion of the computer memory. It is also common

knowledge that if Bass's modem did not have memory but needed to use memory in order to

operate, Bass would have to rely on the computer memory for the data it currently stores in its

modem memory and thus for also this reason, the modem memory is an expansion of the

computer memory. What Knighton also teaches is that the PCMCIA slot is an ordinary general

purpose (Knighton 6032866: col. 6 lines 41-46: PCMCIA slot is ordinary general purpose as it

can have a PCMCIA card which can be ordinary things like memory, camera, optical reader).

Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was

made, to arrive at the general purpose or ordinary expansion memory as indicated by the instant

claims, because the combined teaching of Bass with Knighton suggest general purpose or

ordinary expansion memory as indicated by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or locations with

different functionalities (Bass col. 4 lines 12-16) (something broad) in general and Knighton

suggests the beneficial use of the functionalities being ordinary general purpose (by using the

memory for a different application such as memory for the modem in Bass fig. 4 and memory for

a non-modem microprocessor as in Knighton's fig. 8: 144, col. 6 lines 41-46 and also by other

uses such as camera and optical reader) expansion memory (by the Knighton or Bass memory

being an expansion of the memory already in the computer of Bass and also if Bass's modem did

not have memory but needed to use memory in order to operate, Bass would have to use the

computer memory for data it currently stores in its modem memory and thus for also this reason,

the modem memory is an expansion of the computer memory) in the analogous art of PCMCIA

cards.

21.   What Bass does not teach is general purpose interface of an expansion memory location.

It is common knowledge that since Bass in view of Knighton teaches general purpose interface

and also teaches expansion memory and location or slots as discussed above, that the slot

location would have to contain an interface in order for it to be useful for other devices when

connected. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass in view of Knighton with general

purpose interface of an expansion memory location as recited by the instant claims, because Bass

in view of Knighton suggests interfacing general purpose devices (Bass fig. 4: modem with

memory; Knighton fig. 8: 144, col. 6 lines 41-46: memory, camera and optical reader) of which

at least some of which provide an expansion of memory, as discussed above, in the analogous art

of memory.

22.   What Bass does not teach is wireless data communication unit. It is common knowledge

that if there is one device with communicates wirelessly, there is a second device which

communicates wirelessly with the first device otherwise the first device would not be able to

communicate wirelessly as it would not have anyone to communicate with. Bass does teach the

first device which is applicant's claimed data communication device which is applicant's

claimed said communication device for wireless data communication (Bass fig. 3: the modem

305, 307 is the data communication device which will be attached to the computer) and Bass also

teaches wireless communications (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer devices to communicate with other computer devices ..."). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Bass with the wireless data communication unit as recited by the instant claims, because Bass teaches one device communicating wirelessly and thus suggests that there is a second device or wireless data communication unit to receive the first device's communication in the analogous art of wireless communication.

23.   Bass does not teach short range. It is common knowledge that if transmission power is small than the range of transmission will be short as there is not much energy to transmit at a long distance. Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Bass with the short range as recited by the instant claims, because Bass teaches low transmission power (Bass col. 1 lines 49, 56-59: transmit power 600mW, 1W up to 3W; since transmit power is small, it will be short range) and thus suggests that the range will be short (Bass col. 1 lines 44-46: "The ability of the radio to transmit at certain ranges is limited by the transmit power it can radiate via the antenna.") in the analogous art of wireless communication.

24.   As per claim 10: A data communication device according to claim 8, wherein the short-range data communication unit is an LPRF unit (Bass col. 1 lines 27, 44: RF; lines 49, 56-59: 600mW, 1W up to 3W is low power).

25.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bass USPN

5,896,574 in view of Nakajima USPN 6,085,225 and Knighton USPN 6,032,866. Here is how

the references teach the claim:

26.   As per claim 6: A method for wireless data communication between a wireless device,

having means for short-range data communication, and an electronic device, the method

comprising: mounting a data communication device (Bass fig. 3: 305, 307; fig. 2: 205, 207)

having means for short-range wireless data communication (Bass col. 4 lines 17-19: radio

module 209 with antenna 213; lines 32-33: radio module 209 contained in housing container 311

; line 37: PCMCIA card and radio module connected to housing; line 13: wireless modem

comprises PCMCIA card adapter 205) (Bass does not teach short range but it would be obvious

as explained below) in a general purpose expansion memory (this is not taught in Bass but it

would be obvious as explained below) location of the electronic device (Bass fig. 3: 203A, 203B

in computer 201); activating a short-range wireless data communication link between the

wireless device (wireless device is not in Bass but would be obvious as explained below) and the

data communication device (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer

devices to communicate with other computer devices ..."; fig. 3: the modem 305,307 is the data

communication device which will be attached to the computer); and transmitting data (Bass col.

1 lines 24-26) between the data communication device and the wireless device (Bass col. 1 lines

13-15: "Wireless modems enable mobile computer devices to communicate with other computer

devices ..."); and transmitting data (Bass col. 1 lines 24-26, fig. 5: transmitter 503) between the

data communication device and the wireless device (Bass col. 1 lines 13-15: "Wireless modems

enable mobile computer devices to communicate with other computer devices ..."), wherein the

data communication between the data communication device and the wireless device is made

automatically on the basis of the logic of the data communication device so that it is activated by

the storage of data (not in Bass but would be obvious as explained below) so that the data

communication device operates as an ordinary expansion memory (Bass does not teach ordinary

expansion memory but it would be obvious as explained below) from the view point of the

electronic device (Bass fig. 3: 201 is the electronic device; Bass figs. 3, 4: attaching the wireless

card with the memory into the computer is from the view point of the computer more memory

attached to the computer through the wireless card; col. 5 lines 34-35: "The adapter card is wired

such that it looks to the PCMCIA bus as a memory card.")

27.   Bass does not teach the communication is made automatically on the basis of the logic of

the data communication device so that it is activated by the storage of data. Nakajima 6085225

teaches the communication is made automatically on the basis of the logic of the data

communication device so that it is activated by the storage of data (Nakajima col. 10 lines 41-46:

"When supply information or newly updated supply information is received by information

input/output unit 20, information retrieval manager 21 updates the content of transmission object

information storage unit 22a and initiates the transmission process for the received supply

information."). Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to arrive at the communication being made automatically on the basis of the

logic of the data communication device so that it is activated by the storage of data as indicated

by the instant claims, because the combined teaching of Bass with Nakajima suggest

communication being made automatically on the basis of the logic of the data communication

device so that it is activated by the storage of data as indicated by the instant claims.

Furthermore, one of ordinary skill in the art, would have been motivated to combine the

teachings of Bass with Nakajima because Bass suggests communication by transmission

(something broad) in general and Nakajima suggests the beneficial use of communication when

storage of data occurs such as saving energy and bandwidth by not transmitting noise or old data

which is not needed in the analogous art of data transmission.

28.   What Bass does not teach is general purpose or ordinary expansion memory. Knighton

with Bass teach general purpose or ordinary memory as memory can be used for different

ordinary applications such as Knighton using memory for ordinary purposes of a microprocessor

(Knighton fig. 8 130, 144) and Bass using memory at least for the ordinary purposes of the

modem (Bass fig. 4). It is common knowledge that if the word memory is used with computers,

that it is an ordinary memory that is used to store general purpose data. It is also common

knowledge that a computer already has memory and thus the Bass computer has memory and

any additional memory attached to the computer, for example attaching memory at the

computer's PCMCIA slot, is an expansion of the computer memory. It is also common

knowledge that if Bass's modem did not have memory but needed to use memory in order to

operate, Bass would have to rely on the computer memory for the data it currently stores in its

modem memory and thus for also this reason, the modem memory is an expansion of the

computer memory. What Knighton also teaches is that the PCMCIA slot is an ordinary general

purpose (Knighton 6032866: col. 6 lines 41-46: PCMCIA slot is ordinary general purpose as it

can have a PCMCIA card which can be ordinary things like memory, camera, optical reader).

Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was

made, to arrive at the general purpose or ordinary expansion memory as indicated by the instant

claims, because the combined teaching of Bass with Knighton suggest general purpose or

ordinary expansion memory as indicated by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or locations with

different functionalities (Bass col. 4 lines 12-16) (something broad) in general and Knighton

suggests the beneficial use of the functionalities being ordinary general purpose (by using the

memory for a different application such as memory for the modem in Bass fig. 4 and memory for

a non-modem microprocessor as in Knighton's fig. 8: 144, col. 6 lines 41-46 and also by other

uses such as camera and optical reader) expansion memory (by the Knighton or Bass memory

being an expansion of the memory already in the computer of Bass and also if Bass's modem did

not have memory but needed to use memory in order to operate, Bass would have to use the

computer memory for data it currently stores in its modem memory and thus for also this reason,

the modem memory is an expansion of the computer memory) in the analogous art of PCMCIA

cards.

29.   What Bass does not teach is wireless device. It is common knowledge that if there is one

device with communicates wirelessly, that is a second device which communicates wirelessly

with the first device otherwise the first device would not be able to communicate wirelessly as it

would not have anyone to communicate with. Bass does teach the first device which is

applicant's claimed data communication device (Bass fig. 3: the modem 305,307 is the data

communication device which will be attached to the computer) and Bass also teaches wireless

communications (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer devices to

communicate with other computer devices ..."). Thus, it would have been obvious, to one of

ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Bass

with the wireless device as recited by the instant claims, because Bass teaches one device

communicating wirelessly and thus suggests that there is a second device or wireless device to

receive the first device's communication in the analogous art of wireless communication.

30.   Bass does not teach short range. It is common knowledge that if transmission power is

small than the range of transmission will be short as there is not much energy to transmit at a

long distance. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass with the short range as recited by

the instant claims, because Bass teaches low transmission power (Bass col. 1 lines 49, 56-59:

transmit power 600mW, 1W up to 3W; since transmit power is small, it will be short range) and

thus suggests that the range will be short (Bass col. 1 lines 44-46: "The ability of the radio to

transmit at certain ranges is limited by the transmit power it can radiate via the antenna.") in the

analogous art of wireless communication.

31.   Claims 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bass USPN

5,896,574 in view of Knighton USPN 6,032,866 and Okaue USPN 6,170,743. Here is how the

references teach the claims:

32.   As per claim 11: A data communications device for wireless data communication

between a wireless device, which has means for a short-range data link, and an electronic device,

the data communication device comprising: a controller connectable (Bass fig. 2, 3: 209 is

connectable; 209 is the rf module that controls with the baseband processor receives) to a general

purpose interface of an expansion memory location (general purpose interface of an expansion

memory location is not in Bass but would be obvious as explained below) of the electronic

device (Bass fig. 3: 201), for controlling the operation of the data communication device (Bass:

the data received by the baseband processor 205, 305 has to first go through the radio module

209 and hence the radio module controls what the baseband processor receives), a short-range

(short range is not in Bass but it would be obvious as explained below) LPRF (Bass col. 1 lines

27, 44: RF; lines 49, 56-59: 600mW, 1W up to 3W is low power) wireless data communication

unit (not in Bass but would be obvious as explained below) and a short range radio frequency

antenna (Bass fig. 5: 515) for data communication; a memory for storing the communicated data

(Bass fig. 4: memory); means for supplying a busy signal to the electronic device when the

memory is processed by the radio link, and a busy signal to the LPRF unit when the memory is

processed by the electronic device (not in Bass but would be obvious as explained below),

wherein said communication device for wireless data communication (Bass fig. 3: 305, 307, fig.

2: 205, 207: the modem 305, 307, 205, 207 is the data communication device which will be

attached to the computer) is arranged to mount into a general purpose expansion memory

location (Bass fig. 3: locations 203B, 203A) of the electronic device (Bass fig. 3: 201), said

communication device being arranged to operate as an ordinary expansion memory (Bass does

not teach ordinary expansion memory but it would be obvious as explained below) from the view

point of the electronic device (Bass fig. 3: 201 is the electronic device; Bass figs. 3, 4: attaching

the wireless card with the memory into the computer is from the view point of the computer

more memory attached to the computer through the wireless card; col. 5 lines 34-35: "The

adapter card is wired such that it looks to the PCMCIA bus as a memory card.")

33.   What Bass does not teach is that the PCMCIA slot is a general purpose interface. What

Knighton teaches that the PCMCIA slot is a general purpose interface (Knighton 6032866: col. 6

lines 41-46: PCMCIA slot is a general purpose interface as it can have a PCMCIA card which

can be such things as memory, camera, optical reader). Thus, it would have been obvious, to one

of ordinary skill in the art, at time the invention was made, to arrive at the general purpose

interface as recited by the instant claims, because the combined teaching of Bass with Knighton

suggest general purpose interface as recited by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests two PCMCIA slots with different functionalities such as where one has

the baseband portion of the modem and the other has the battery for the modem (Bass col. 4 lines

12-16) (something broad) in general and Knighton suggests the beneficial use of having the

PCMCIA slots be general purpose interface by being able to have things with additional

functionalities such as to have more memory, or to have a camera, or to have an optical reader in

the analogous art of PCMCIA cards.

34.   What Bass does not teach is general purpose or ordinary expansion memory. Knighton

with Bass teach general purpose or ordinary memory as memory can be used for different

ordinary applications such as Knighton using memory for ordinary purposes of a microprocessor

(Knighton fig. 8 130, 144) and Bass using memory at least for the ordinary purposes of the

modem (Bass fig. 4). It is common knowledge that if the word memory is used with computers,

that it is an ordinary memory that is used to store general purpose data. It is also common

knowledge that a computer already has memory and thus the Bass computer has memory and

any additional memory attached to the computer, for example attaching memory at the

computer's PCMCIA slot, is an expansion of the computer memory. It is also common

knowledge that if Bass's modem did not have memory but needed to use memory in order to

operate, Bass would have to rely on the computer memory for the data it currently stores in its

modem memory and thus for also this reason, the modem memory is an expansion of the

computer memory. What Knighton also teaches is that the PCMCIA slot is an ordinary general

purpose (Knighton 6032866: col. 6 lines 41-46: PCMCIA slot is ordinary general purpose as it

can have a PCMCIA card which can be ordinary things like memory, camera, optical reader).

Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was

made, to arrive at the general purpose or ordinary expansion memory as indicated by the instant

claims, because the combined teaching of Bass with Knighton suggest general purpose or

ordinary expansion memory as indicated by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or locations with

different functionalities (Bass col. 4 lines 12-16) (something broad) in general and Knighton

suggests the beneficial use of the functionalities being ordinary general purpose (by using the

memory for a different application such as memory for the modem in Bass fig. 4 and memory for

a non-modem microprocessor as in Knighton's fig. 8: 144, col. 6 lines 41-46 and also by other

uses such as camera and optical reader) expansion memory (by the Knighton or Bass memory

being an expansion of the memory already in the computer of Bass and also if Bass's modem did

not have memory but needed to use memory in order to operate, Bass would have to use the

computer memory for data it currently stores in its modem memory and thus for also this reason,

the modem memory is an expansion of the computer memory) in the analogous art of PCMCIA

cards.

35.   What Bass does not teach is general purpose interface of an expansion memory location.

It is common knowledge that since Bass in view of Knighton teaches general purpose interface

and also teaches expansion memory and location or slots as discussed above, that the slot

location would have to contain an interface in order for it to be useful for other devices when

connected. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass in view of Knighton with general

purpose interface of an expansion memory location as recited by the instant claims, because Bass

in view of Knighton suggests interfacing general purpose devices (Bass fig. 4: modem with

memory; Knighton fig. 8: 144, col. 6 lines 41-46: memory, camera and optical reader) of which

at least some of which provide an expansion of memory, as discussed above, in the analogous art

of memory.

36.   What Bass does not teach is means for supplying a busy signal to the electronic device

when the memory is processed by the radio link, and a busy signal to the LPRF unit when the

memory is processed by the electronic device. What Okaue teaches is means for supplying a

busy signal to the electronic device (Okaue fig. 5: busy/ready signal to host) when the memory is

processed (Okaue fig. 5: memory card writing data in S13) by the radio link, and a busy signal to

the LPRF unit when the memory is processed by the electronic device (Okaue fig. 5: S12 busy

state in memory card when register is being transmitted).   Thus, it would have been obvious, to

one of ordinary skill in the art, at time the invention was made, to arrive at the supplying a busy

signal to the electronic device when the memory is processed by the radio link, and a busy signal

to the LPRF unit when the memory is processed by the electronic device as recited by the instant

claims, because the combined teaching of Bass with Okaue suggest supplying a busy signal to

the electronic device when the memory is processed by the radio link, and a busy signal to the

LPRF unit when the memory is processed by the electronic device as recited by the instant

claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the

teachings of Bass with Okaue because Bass suggests transmission (something broad) in general

and Okaue suggests the beneficial use of indicating with busy signals to prevent memory change

during transmission such as preventing erroneous erasure and having write protection in the

analogous art of memory processing.

37.   What Bass does not teach is wireless data communication unit. It is common knowledge

that if there is one device with communicates wirelessly, there is a second device which

communicates wirelessly with the first device otherwise the first device would not be able to

communicate wirelessly as it would not have anyone to communicate with. Bass does teach the

first device which is applicant's claimed data communication device which is applicant's

claimed said communication device for wireless data communication (Bass fig. 3: the modem

305, 307 is the data communication device which will be attached to the computer) and Bass also

teaches wireless communications (Bass col. 1 lines 13-15: "Wireless modems enable mobile

computer devices to communicate with other computer devices ..."). Thus, it would have been

obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art

teaching of Bass with the wireless data communication unit as recited by the instant claims,

because Bass teaches one device communicating wirelessly and thus suggests that there is a

second device or wireless data communication unit to receive the first device's communication

in the analogous art of wireless communication.

38.   Bass does not teach short range. It is common knowledge that if transmission power is

small than the range of transmission will be short as there is not much energy to transmit at a

long distance. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass with the short range as recited by

the instant claims, because Bass teaches low transmission power (Bass col. 1 lines 49, 56-59:

transmit power 600mW, 1W up to 3W; since transmit power is small, it will be short range) and

thus suggests that the range will be short (Bass col. 1 lines 44-46: "The ability of the radio to

transmit at certain ranges is limited by the transmit power it can radiate via the antenna.") in the

analogous art of wireless communication.

39.   As per claim 12: A data communications device for wireless data communication

between a wireless device, which has means for a short-range data link, and an electronic device,

the data communication device comprising: a controller connectable (Bass fig. 2, 3: 209 is

connectable; 209 is the rf module that controls with the baseband processor receives) to a general

purpose interface of an expansion memory location (general purpose interface of an expansion

memory location is not in Bass but would be obvious as explained below) of the electronic

device (Bass fig. 3: 201), for controlling the operation of the data communication device (Bass:

the data received by the baseband processor 205, 305 has to first go through the radio module

209 and hence the radio module controls what the baseband processor receives), a short-range

(short range is not in Bass but it would be obvious as explained below) LPRF (Bass col. 1 lines

27, 44: RF; lines 49, 56-59: 600mW, 1W up to 3W is low power) wireless data communication

unit (not in Bass but would be obvious as explained below) and a short range radio frequency

antenna (Bass fig. 5: 515) for data communication; a memory for storing the communicated data

(Bass fig. 4: memory); means for giving to the microcontroller an operation enable signal

enabling the operation of the data communication device when the memory is processed by the

electronic device, and a busy signal when the LPRF unit is occupied for data communication (not

in Bass but would be obvious as explained below), wherein said communication device for

wireless data communication (Bass fig. 3: 305, 307, fig. 2: 205, 207: the modem 305, 307, 205,

207 is the data communication device which will be attached to the computer) is arranged to

mount into a general purpose expansion memory location (Bass fig. 3: locations 203B, 203A) of

the electronic device (Bass fig. 3: 201), said communication device being arranged to operate as

an ordinary expansion memory (Bass does not teach ordinary expansion memory but it would be

obvious as explained below) from the view point of the electronic device (Bass fig. 3: 201 is the

electronic device; Bass figs. 3, 4: attaching the wireless card with the memory into the computer

is from the view point of the computer more memory attached to the computer through the

wireless card; col. 5 lines 34-35: "The adapter card is wired such that it looks to the PCMCIA

bus as a memory card.")

40.   What Bass does not teach is that the PCMCIA slot is a general purpose interface. What

Knighton teaches that the PCMCIA slot is a general purpose interface (Knighton 6032866: col. 6

lines 41-46: PCMCIA slot is a general purpose interface as it can have a PCMCIA card which

can be such things as memory, camera, optical reader). Thus, it would have been obvious, to one

of ordinary skill in the art, at time the invention was made, to arrive at the general purpose

interface as recited by the instant claims, because the combined teaching of Bass with Knighton

suggest general purpose interface as recited by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or locations with

different functionalities (Bass col. 4 lines 12-16) (something broad) in general and Knighton

suggests the beneficial use of having the PCMCIA slots be general purpose interface by being

able to have things with additional functionalities such as to have more memory, or to have a

camera, or to have an optical reader in the analogous art of PCMCIA cards.

41.   What Bass does not teach is general purpose or ordinary expansion memory. Knighton

with Bass teach general purpose or ordinary memory as memory can be used for different

ordinary applications such as Knighton using memory for ordinary purposes of a microprocessor

(Knighton fig. 8 130, 144) and Bass using memory at least for the ordinary purposes of the

modem (Bass fig. 4). It is common knowledge that if the word memory is used with computers,

that it is an ordinary memory that is used to store general purpose data. It is also common

knowledge that a computer already has memory and thus the Bass computer has memory and

any additional memory attached to the computer, for example attaching memory at the

computer's PCMCIA slot, is an expansion of the computer memory. It is also common

knowledge that if Bass's modem did not have memory but needed to use memory in order to

operate, Bass would have to rely on the computer memory for the data it currently stores in its

modem memory and thus for also this reason, the modem memory is an expansion of the

computer memory. What Knighton also teaches is that the PCMCIA slot is an ordinary general

purpose (Knighton 6032866: col. 6 lines 41-46: PCMCIA slot is ordinary general purpose as it

can have a PCMCIA card which can be ordinary things like memory, camera, optical reader).

Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was

made, to arrive at the general purpose or ordinary expansion memory as indicated by the instant

claims, because the combined teaching of Bass with Knighton suggest general purpose or

ordinary expansion memory as indicated by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or locations with

different functionalities such as where one has the baseband portion of the modem and the other

has the battery for the modem (Bass col. 4 lines 12-16) (something broad) in general and

Knighton suggests the beneficial use of the functionalities being ordinary general purpose (by

another use for a memory such as memory for the modem in Bass fig. 4 and memory for a non-

modem microprocessor as in Knighton's fig. 8: 144, col. 6 lines 41-46 and also by other uses

such as camera and optical reader) expansion memory (by the Knighton or Bass memory being

an expansion of the memory already in the computer of Bass and also if Bass's modem did not

have memory but needed to use memory in order to operate, Bass would have to use the

computer memory for data it currently stores in its modem memory and thus for also this reason,

the modem memory is an expansion of the computer memory) in the analogous art of PCMCIA

cards.

42.   What Bass does not teach is general purpose interface of an expansion memory location.

It is common knowledge that since Bass in view of Knighton teaches general purpose interface

and also teaches expansion memory and location or slots as discussed above, that the slot

location would have to contain an interface in order for it to be useful for other devices when

connected. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass in view of Knighton with general

purpose interface of an expansion memory location as recited by the instant claims, because Bass

in view of Knighton suggests interfacing general purpose devices (Bass fig. 4: modem with

memory; Knighton fig. 8: 144, col. 6 lines 41-46: memory, camera and optical reader) of which

at least some of which provide an expansion of memory, as discussed above, in the analogous art

of memory.

43.   What Bass does not teach is means for giving to the microcontroller an operation enable

signal enabling the operation of the data communication device when the memory is processed

by the electronic device, and a busy signal when the LPRF unit is occupied for data

communication. What Okaue teaches is means for giving to the microcontroller an operation

enable signal (Okaue fig. 5: signal from S2 that there is no write protection) enabling the

operation of the data communication device (Okaue fig. 5: after S4, host can issue command set

in S5) when the memory is processed by the electronic device (Okaue fig. 5: issue write page

buffer instruction S4), and a busy signal when the LPRF unit is occupied for data communication

(Okaue fig. 5: S12 busy state in memory card when register is being transmitted). Thus, it would

have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at

the giving to the microcontroller an operation enable signal enabling the operation of the data

communication device when the memory is processed by the electronic device, and a busy signal

when the LPRF unit is occupied for data communication as recited by the instant claims, because

the combined teaching of Bass with Okaue suggest giving to the microcontroller an operation

enable signal enabling the operation of the data communication device when the memory is

processed by the electronic device, and a busy signal when the LPRF unit is occupied for data

communication as recited by the instant claims. Furthermore, one of ordinary skill in the art,

would have been motivated to combine the teachings of Bass with Okaue because Bass suggests

transmission (something broad) in general and Okaue suggests the beneficial use of indicating

with busy signals to prevent memory change during transmission and indicating with ready

signal when it is okay to change so as to prevent erroneous erasure and having write protection

with efficient processing in the analogous art of memory processing.

44.   What Bass does not teach is wireless data communication unit. It is common knowledge

that if there is one device with communicates wirelessly, there is a second device which

communicates wirelessly with the first device otherwise the first device would not be able to

communicate wirelessly as it would not have anyone to communicate with. Bass does teach the

first device which is applicant's claimed data communication device which is applicant's

claimed said communication device for wireless data communication (Bass fig. 3: the modem

305, 307 is the data communication device which will be attached to the computer) and Bass also

teaches wireless communications (Bass col. 1 lines 13-15: "Wireless modems enable mobile

computer devices to communicate with other computer devices ..."). Thus, it would have been

obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art

teaching of Bass with the wireless data communication unit as recited by the instant claims,

because Bass teaches one device communicating wirelessly and thus suggests that there is a

second device or wireless data communication unit to receive the first device's communication

in the analogous art of wireless communication.

45.   Bass does not teach short range. It is common knowledge that if transmission power is

small than the range of transmission will be short as there is not much energy to transmit at a

long distance. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass with the short range as recited by

the instant claims, because Bass teaches low transmission power (Bass col. 1 lines 49, 56-59:

transmit power 600mW, 1W up to 3W; since transmit power is small, it will be short range) and

thus suggests that the range will be short (Bass col. 1 lines 44-46: "The ability of the radio to

transmit at certain ranges is limited by the transmit power it can radiate via the antenna.") in the

analogous art of wireless communication.

46.   As per claim 13: An electronic device comprising: a first memory (not in Bass but would

be obvious as explained below); a general purpose expansion mount (Bass fig. 3: 203A, 203B in

computer 201 which mounts 305, 307) (general purpose is not taught in Bass but it would be

obvious as explained below) for a second ordinary expansion memory (Bass fig. 4: memory)

(Bass does not teach that the memory is an ordinary expansion memory but it would be obvious

as explained below); and circuitry for preventing another process from changing the first and

second memories during an LPRF-data transmission (not in Bass but would be obvious as

explained below).

47.   What Bass does not teach is that the PCMCIA slot is general purpose. What Knighton

teaches that the PCMCIA slot is general purpose (Knighton 6032866: col. 6 lines 41-46:

PCMCIA slot is general purpose as it can have a PCMCIA card which can be such things as

memory, camera, optical reader). Thus, it would have been obvious, to one of ordinary skill in

the art, at time the invention was made, to arrive at the general purpose as recited by the instant

claims, because the combined teaching of Bass with Knighton suggest general purpose as recited

by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to

combine the teachings of Bass with Knighton because Bass suggests two PCMCIA slots with

different functionalities such as where one has the baseband portion of the modem and the other

has the battery for the modem (Bass col. 4 lines 12-16) (something broad) in general and

Knighton suggests the beneficial use of having the PCMCIA slots be general purpose such as to

have more memory, or to have a camera which would have memory, or to have an optical reader

which would have memory in the analogous art of PCMCIA cards.

48.   What Bass in view of Knighton does not teach is a first memory and a circuitry for

preventing another process from changing the first and second memories during an LPRF-data

transmission. What Okaue teaches is first memory (Okaue fig. 5: memory in memory card) and

preventing another process (Okaue fig. 5: S1) from changing the memory during an LPRF-data

transmission (Okaue fig. 5: S11 erase prevention when register content is transmitted). Okaue

does not teach preventing a change in both memories but since it can do it in one memory, it

could do it in both memories as Okaue in fig. 5 is preventing register erasure in the memory card

instep S11 and the host is also executing write inhibit processing in S3. Thus, it would have

been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the

first memory and a circuitry for preventing another process from changing the first and second

memories during an LPRF-data transmission as recited by the instant claims, because the

combined teaching of Bass in view of Knighton with Okaue suggest memories with circuitry for

preventing another process from changing the memories during an LPRF-data transmission as

indicated by the instant claims. Furthermore, one of ordinary skill in the art, would have been

motivated to combine the teachings of Bass in view of Knighton with Okaue because Bass

suggests transmission (something broad) in general and Okaue suggests the beneficial use of

preventing memory change during transmission such as preventing erroneous erasure and having

write protection in the analogous art of memory processing.

49.   What Bass does not teach is ordinary expansion memory. Knighton with Bass teach

ordinary memory as memory can be used for different ordinary applications such as Knighton

using memory for ordinary purposes of a microprocessor (Knighton fig. 8 130, 144) and Bass

using memory at least for the ordinary purposes of the modem (Bass fig. 4). It is common

knowledge that if the word memory is used with computers, that it is an ordinary memory that is

used to store general purpose data. It is also common knowledge that a computer already has

memory and thus the Bass computer has memory and any additional memory attached to the

computer, for example attaching memory at the computer's PCMCIA slot, is an expansion of the

computer memory. It is also common knowledge that if Bass's modem did not have memory but

needed to use memory in order to operate, Bass would have to rely on the computer memory for

the data it currently stores in its modem memory and thus for also this reason, the modem

memory is an expansion of the computer memory. Thus, it would have been obvious, to one of

ordinary skill in the art, at time the invention was made, to arrive at the ordinary expansion

memory as indicated by the instant claims, because the combined teaching of Bass with

Knighton suggest ordinary expansion memory as indicated by the instant claims. Furthermore,

one of ordinary skill in the art, would have been motivated to combine the teachings of Bass with

Knighton because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or

locations with different functionalities such as where one has the baseband portion of the modem

and the other has the battery for the modem (Bass col. 4 lines 12-16) (something broad) in

general and Knighton suggests the beneficial use of the functionalities being ordinary (by

another use for a memory such as memory for the modem in Bass fig. 4 and memory for a non-

modem microprocessor as in Knighton's fig. 8: 144, col. 6 lines 41-46 and also by other uses

such as camera and optical reader; and also because specifics of the memory is not provided and

thus it is ordinary) expansion memory (by the Knighton or Bass memory being an expansion of

the memory already in the computer of Bass and also if Bass's modem did not have memory but

needed to use memory in order to operate, Bass would have to use the computer memory for data

it currently stores in its modem memory and thus for also this reason, the modem memory is an

expansion of the computer memory) in the analogous art of PCMCIA cards.

50.   As per claim 14: The electronic device of claim 13 comprising a communication device

mounted into the general purpose expansion mount, the data communication device including: a

controller connectable (Bass fig. 2, 3: 209 is connectable; 209 is the rf module that controls with

the baseband processor receives) to a general purpose interface of the expansion mount (general

purpose interface of an expansion memory mount is not in Bass but would be obvious as

explained below), for controlling the operation of the data communication device (Bass: the data

received by the baseband processor 205, 305 has to first go through the radio module 209 and

hence the radio module controls what the baseband processor receives); a short-range (short

range is not in Bass but it would be obvious as explained below) radio frequency (Bass col. 1

lines 27, 44: RF) wireless data communication unit (not in Bass but would be obvious as

explained below) and a short range radio frequency antenna (Bass fig. 5: 515) for data

communication; and at least a portion of the second memory for storing a communicated data

(Bass fig. 4: portion of memory can be used now so that remainder can be used later), wherein

the data communication device is arranged to operate as the second ordinary expansion memory

(Bass fig. 4: memory in the PCMCIA modem card) from the view point of the electronic device

(Bass fig. 3: 201 is the electronic device; Bass figs. 3, 4: attaching the wireless card with the

memory into the computer is from the view point of the computer more memory attached to the

computer through the wireless card; col. 5 lines 34-35: "The adapter card is wired such that it

looks to the PCMCIA bus as a memory card.").

51.   What Bass does not teach is general purpose or ordinary expansion memory. Knighton

with Bass teach general purpose or ordinary memory as memory can be used for different

ordinary applications such as Knighton using memory for ordinary purposes of a microprocessor

(Knighton fig. 8 130, 144) and Bass using memory at least for the ordinary purposes of the

modem (Bass fig. 4). It is common knowledge that if the word memory is used with computers,

that it is an ordinary memory that is used to store general purpose data. It is also common

knowledge that a computer already has memory and thus the Bass computer has memory and

any additional memory attached to the computer, for example attaching memory at the

computer's PCMCIA slot, is an expansion of the computer memory. It is also common

knowledge that if Bass's modem did not have memory but needed to use memory in order to

operate, Bass would have to rely on the computer memory for the data it currently stores in its

modem memory and thus for also this reason, the modem memory is an expansion of the

computer memory. What Knighton also teaches is that the PCMCIA slot is an ordinary general

purpose (Knighton 6032866: col. 6 lines 41-46: PCMCIA slot is ordinary general purpose as it can have a PCMCIA card which can be ordinary things like memory, camera, optical reader). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the general purpose or ordinary expansion memory as indicated by the instant claims, because the combined teaching of Bass with Knighton suggest general purpose or ordinary expansion memory as indicated by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Bass with Knighton because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or locations with different functionalities (Bass col. 4 lines 12-16) (something broad) in general and Knighton suggests the beneficial use of the functionalities being ordinary general purpose (by using the memory for a different application such as memory for the modem in Bass fig. 4 and memory for a non-modem microprocessor as in Knighton's fig. 8: 144, col. 6 lines 41-46 and also by other uses such as camera and optical reader) expansion memory (by the Knighton or Bass memory being an expansion of the memory already in the computer of Bass and also if Bass's modem did not have memory but needed to use memory in order to operate, Bass would have to use the computer memory for data it currently stores in its modem memory and thus for also this reason, the modem memory is an expansion of the computer memory) in the analogous art of PCMCIA cards.

52.   What Bass does not teach is general purpose interface of an expansion memory mount. It is common knowledge that since Bass in view of Knighton teaches general purpose interface and also teaches expansion memory and mounting slots as discussed above, that the slot mount would have to contain an interface in order for it to be useful for other devices when connected.

Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Bass in view of Knighton with general purpose interface of an expansion memory mount as recited by the instant claims, because Bass in view of Knighton suggests interfacing general purpose devices (Bass fig. 4: modem with memory; Knighton fig. 8: 144, col. 6 lines 41-46: memory, camera and optical reader) of which at least some of which provide an expansion of memory, as discussed above, in the analogous art of memory.

53.   What Bass does not teach is wireless data communication unit. It is common knowledge that if there is one device with communicates wirelessly, there is a second device which communicates wirelessly with the first device otherwise the first device would not be able to communicate wirelessly as it would not have anyone to communicate with. Bass does teach the first device which is applicant's claimed data communication device which is applicant's claimed said communication device for wireless data communication (Bass fig. 3: the modem 305, 307 is the data communication device which will be attached to the computer) and Bass also teaches wireless communications (Bass col. 1 lines 13-15: "Wireless modems enable mobile computer devices to communicate with other computer devices ..."). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Bass with the wireless data communication unit as recited by the instant claims, because Bass teaches one device communicating wirelessly and thus suggests that there is a second device or wireless data communication unit to receive the first device's communication in the analogous art of wireless communication.

54.   Bass does not teach short range. It is common knowledge that if transmission power is

small than the range of transmission will be short as there is not much energy to transmit at a

long distance. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass with the short range as recited by

the instant claims, because Bass teaches low transmission power (Bass col. 1 lines 49, 56-59:

transmit power 600mW, 1W up to 3W; since transmit power is small, it will be short range) and

thus suggests that the range will be short (Bass col. 1 lines 44-46: "The ability of the radio to

transmit at certain ranges is limited by the transmit power it can radiate via the antenna.") in the

analogous art of wireless communication.

55.   As per claim 15: An electronic device according to claim 13, wherein the circuitry

comprises a busy-signal means (Okaue fig. 5: busy state, busy/read signal).

56.   As per claim 16: A data communications device for short range radio frequency wireless

data communication between a wireless device and an electronic device, mounted in a general

purpose expansion memory location of the electronic device, the data communication device

comprising: a controller connectable (Bass fig. 2, 3: 209 is connectable; 209 is the rf module that

controls with the baseband processor receives) to a general purpose interface of the general

purpose expansion memory location (general purpose interface of an expansion memory location

is not in Bass but would be obvious as explained below), for controlling the operation of the data

communication device (Bass: the data received by the baseband processor 205, 305 has to first

go through the radio module 209 and hence the radio module controls what the baseband

processor receives); a short-range (short range is not in Bass but it would be obvious as

explained below) radio frequency (Bass col. 1 lines 27, 44: RF) wireless data communication

unit (not in Bass but would be obvious as explained below) and a short range radio frequency

antenna (Bass fig. 5: 515) for data communication; a memory for storing a communicated data

(Bass fig. 4: memory); and circuitry for preventing another process (Okaue fig. 5: S1) from

changing the memory during an LPRF-data transmission (Okaue fig. 5: S11 erase prevention

when register content is transmitted), wherein the data communication device is arranged to

operate as an ordinary expansion memory (Bass does not teach ordinary expansion memory but

it would be obvious as explained below) from the view point of the electronic device (Bass fig.

3: 201 is the electronic device; Bass figs. 3, 4: attaching the wireless card with the memory into

the computer is from the view point of the computer more memory attached to the computer

through the wireless card; col. 5 lines 34-35: "The adapter card is wired such that it looks to the

PCMCIA bus as a memory card.").

57.   What Bass does not teach is that the PCMCIA slot is a general purpose interface. What

Knighton teaches that the PCMCIA slot is a general purpose interface (Knighton 6032866: col. 6

lines 41-46: PCMCIA slot is a general purpose interface as it can have a PCMCIA card which

can be such things as memory, camera, optical reader). Thus, it would have been obvious, to one

of ordinary skill in the art, at time the invention was made, to arrive at the general purpose

interface as recited by the instant claims, because the combined teaching of Bass with Knighton

suggest general purpose interface as recited by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests two PCMCIA slots with different functionalities such as where one has

the baseband portion of the modem and the other has the battery for the modem (Bass col. 4 lines

12-16) (something broad) in general and Knighton suggests the beneficial use of having the

PCMCIA slots be general purpose interface by being able to have things with additional

functionalities such as to have more memory, or to have a camera, or to have an optical reader in

the analogous art of PCMCIA cards.

58.   What Bass does not teach is general purpose or ordinary expansion memory. Knighton

with Bass teach general purpose or ordinary memory as memory can be used for different

ordinary applications such as Knighton using memory for ordinary purposes of a microprocessor

(Knighton fig. 8 130, 144) and Bass using memory at least for the ordinary purposes of the

modem (Bass fig. 4). It is common knowledge that if the word memory is used with computers,

that it is an ordinary memory that is used to store general purpose data. It is also common

knowledge that a computer already has memory and thus the Bass computer has memory and

any additional memory attached to the computer, for example attaching memory at the

computer's PCMCIA slot, is an expansion of the computer memory. It is also common

knowledge that if Bass's modem did not have memory but needed to use memory in order to

operate, Bass would have to rely on the computer memory for the data it currently stores in its

modem memory and thus for also this reason, the modem memory is an expansion of the

computer memory. What Knighton also teaches is that the PCMCIA slot is an ordinary general

purpose (Knighton 6032866: col. 6 lines 41-46: PCMCIA slot is ordinary general purpose as it

can have a PCMCIA card which can be ordinary things like memory, camera, optical reader).

Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was

made, to arrive at the general purpose or ordinary expansion memory as indicated by the instant

claims, because the combined teaching of Bass with Knighton suggest general purpose or

ordinary expansion memory as indicated by the instant claims. Furthermore, one of ordinary

skill in the art, would have been motivated to combine the teachings of Bass with Knighton

because Bass suggests modem memory (Bass fig. 4) and two PCMCIA slots or locations with

different functionalities such as where one has the baseband portion of the modem and the other

has the battery for the modem (Bass col. 4 lines 12-16) (something broad) in general and

Knighton suggests the beneficial use of the functionalities being ordinary general purpose (by

another use for a memory such as memory for the modem in Bass fig. 4 and memory for a non-

modem microprocessor as in Knighton's fig. 8: 144, col. 6 lines 41-46 and also by other uses

such as camera and optical reader) expansion memory (by the Knighton or Bass memory being

an expansion of the memory already in the computer of Bass and also if Bass's modem did not

have memory but needed to use memory in order to operate, Bass would have to use the

computer memory for data it currently stores in its modem memory and thus for also this reason,

the modem memory is an expansion of the computer memory) in the analogous art of PCMCIA

cards.

59.   What Bass does not teach is general purpose interface of an expansion memory location.

It is common knowledge that since Bass in view of Knighton teaches general purpose interface

and also teaches expansion memory and location or slots as discussed above, that the slot

location would have to contain an interface in order for it to be useful for other devices when

connected. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass in view of Knighton with general

purpose interface of an expansion memory location as recited by the instant claims, because Bass

in view of Knighton suggests interfacing general purpose devices (Bass fig. 4: modem with

memory; Knighton fig. 8: 144, col. 6 lines 41-46: memory, camera and optical reader) of which

at least some of which provide an expansion of memory, as discussed above, in the analogous art

of memory.

60.   Bass does not teach circuitry for preventing another process from changing the memory

during a data transmission. Okaue teaches circuitry for preventing another process (Okaue fig. 5:

S1) from changing the memory during a data transmission (Okaue fig. 5: S11 erase prevention

when register content is transmitted). Thus, it would have been obvious, to one of ordinary skill

in the art, at time the invention was made, to arrive at the circuitry for preventing another process

from changing the memory during a data transmission as indicated by the instant claims, because

the combined teaching of Bass with Okaue suggest circuitry for preventing another process from

changing the memory during a data transmission as indicated by the instant claims. Furthermore,

one of ordinary skill in the art, would have been motivated to combine the teachings of Bass with

Okaue because Bass suggests transmission (something broad) in general and Okaue suggests the

beneficial use of preventing memory change during transmission such as preventing erroneous

erasure and having write protection in the analogous art of memory processing.

61.   What Bass does not teach is wireless data communication unit. It is common knowledge

that if there is one device with communicates wirelessly, there is a second device which

communicates wirelessly with the first device otherwise the first device would not be able to

communicate wirelessly as it would not have anyone to communicate with. Bass does teach the

first device which is applicant's claimed data communication device which is applicant's

claimed said communication device for wireless data communication (Bass fig. 3: the modem

305, 307 is the data communication device which will be attached to the computer) and Bass also

teaches wireless communications (Bass col. 1 lines 13-15: "Wireless modems enable mobile

computer devices to communicate with other computer devices ..."). Thus, it would have been

obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art

teaching of Bass with the wireless data communication unit as recited by the instant claims,

because Bass teaches one device communicating wirelessly and thus suggests that there is a

second device or wireless data communication unit to receive the first device's communication

in the analogous art of wireless communication.

62.   Bass does not teach short range. It is common knowledge that if transmission power is

small than the range of transmission will be short as there is not much energy to transmit at a

long distance. Thus, it would have been obvious, to one of ordinary skill in the art, at time the

invention was made, to modify the prior art teaching of Bass with the short range as recited by

the instant claims, because Bass teaches low transmission power (Bass col. 1 lines 49, 56-59:

transmit power 600mW, 1W up to 3W; since transmit power is small, it will be short range) and

thus suggests that the range will be short (Bass col. 1 lines 44-46: "The ability of the radio to

transmit at certain ranges is limited by the transmit power it can radiate via the antenna.") in the

analogous art of wireless communication.

63.   As per claim 17: The data the circuitry communications device of claim 16, wherein

comprises a busy-signal means (Okaue fig. 5: busy state, busy/read signal).

Allowable Subject Matter

64.   Claim 9 is allowed. See prior action for details.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Mon, Tues, Thurs and Fri after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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PK